



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/659,331

09/11/2003

Bogie Boscha

3771

51896

7590

11/19/2007

ILYA ZBOROVSKY
6 SCHOOLHOUSE WAY
DIX HILLS, NY 11746

EXAMINER

HOEL, MATTHEW D

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

11/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/659,331

Applicant(s)

BOSCHA ET AL.

Examiner

Matthew D. Hoel

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 80-88 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 80-88 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 80 to 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuer, et al. (U.S. pre-grant publication 2002/0077189 A1, application 10/016,965) in view of Lee, et al. (U.S. pre-grant publication 2001/0005695 A1, application 09/753,264).

4. Regarding claims 80 (system), 82 (method), and 84 (putter), Tuer et al teaches a system comprising a putter having a handle, a head (¶0026), and sensing means selected from the group consisting of acceleration measuring means, deceleration measuring means (¶0025), putter path measuring means (¶0038: 4), rotation measuring means, lie angle measuring means, a loft angle measuring means (¶0025), and

combinations thereof; means for transmitting data measured by said measuring means (¶0033); computing means for receiving and processing of measured data (¶¶0027, 0028, 0031, 0034); and display means for displaying the processed data so that a golf player can analyze his performance (¶0034). It would be simple and logical to one of ordinary skill in the art to attach some type of identifying number for each player when using the golf club, and Tuer et al is very capable of doing so with the components disclosed; however, Tuer et al lacks in disclosing an identification of the club by a serial number in order to distinguish between other clubs. '695, however, teaches means for forming a data set including the measured swing data of each swing and the serial number (Figs. 10, 11; Para. 77 & Fig. 8, session profile 354 displaying identification of the instrumented golf club). '695 also teaches interior means for transmitting the data set including the measured swing data of each swing carried out by the golf player measured by the measuring means and the serial number (Fig. 1, contacts 20 to 26, Para. 48; Figs. 2 & 3, the examiner notes the applicants do not cite wireless transmission, the circuitry for driving the transmission is internal to the club, Figs. 4 & 5) computing means (28, Fig. 1) for receiving and processing the data set including the measured swing data of each swing carried out by the golf player and the serial number to identify the swing data of each swing carried out by the golf player; and display means (28, Fig. 1; interface screen 212, Fig. 7; Figs. 8 & 9, 12-14) for displaying the swing data (Figs. 10-14) of the swing carried out by the golf player and also the serial number to identify the swing data of the swing carried out by the golf player so that a golf player can identify the swing data of each of his swings. The examiner notes that if

Art Unit: 3714

the player were not using the data to improve his or her swing, the simple display of the data would have not patentable weight since it would be non-functional descriptive language. The use of the swing data to correct the player's swing gives this limitation a concrete, tangible, and useful result (in re Gulack, in re Lowry, in re Ngai, in re Miller). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified '189 to include displaying the serial number with the swing data as taught by '695 and presently claimed. '189 and '695 are both analogous are in that they are both instrumented golf clubs with accelerometers in the head of the golf club and they both display swing data for the player to use in improving his or her game. One of ordinary skill in the art also would have been motivated to make this limitation from the general knowledge of one of ordinary skill in the art because a typical golfer is known to carry several clubs in his or her golf bag (for example, three woods, two wedges, a putter, and eight irons (for example, 3, 4, 5, 6, 7, 8, and 9 irons, plus a pitching wedge). See "KISS Guide to Playing Golf," by Steve Dunno, © 2000, DK Publishing, Inc., Pages 85, 96, and 103 to 105 for a typical assortment of golf clubs. A golfer would want to have a swinging profile for each of the several golf clubs he or she typically uses. Having a serial number would enable the player to distinguish the golf clubs when practicing. The displayed swing data would be worthless if the swing data were not tied to a golf club. Tuer in '189 uses Bluetooth to uniquely identify golf clubs as discussed in the last rejection and "Response to Arguments" of 3-22-2007 which are incorporated by reference. Konow in '722, previously discussed assigns each golf club a unique number for identification purposes using a radio transponder (Abst., Para. 30-

31). '722 mentions using the number to monitor player's play of the game (Para. 46).

The advantage of this modification would be to display the player's golf club's serial number to enable the player to identify the golf club associated with the swing data.

This would allow the player to select the correct golf club to practice with to make effective use of the swing data.

5. As to Claims 81, 83: '695 teaches the date being associated with the swing data (Para. 77). A time stamp is also taught (pre-impact recording time 162, Para. 70). '695 teaches comparing the data to recommend changes in the golf club design (Para. 89) and to improve swing (Para. 90).

6. As to Claims 86 to 88: '695 teaches data sets including swing data and serial number (identification of golf club) as outlined in the rejection of Claim 80. '695 also teaches the data set including the specification of a golf club in that changes are recommended to the specification of the golf club based on the measured data's analysis (Para. 89).

Priority

7. The application claims priority to provisional application 60/473,317. The correct provisional application number is 60/475,317 (filed 6-4-2003). A new oath or ADS will be required to claim priority to this provisional application. 35 U.S.C. 119(e)(1): "An application for patent filed under section 111(a) or section 363 of this title for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in a provisional application filed under section 111(b) of this title, by an inventor or

inventors named in the provisional application, shall have the same effect, as to such invention, as though filed on the date of the provisional application filed under section 111(b) of this title, if the application for patent filed under section 111(a) or section 363 of this title is filed not later than 12 months after the date on which the provisional application was filed and if it contains or is amended to contain a specific reference to the provisional application. No application shall be entitled to the benefit of an earlier filed provisional application under this subsection unless an amendment containing the specific reference to the earlier filed provisional application is submitted at such time during the pendency of the application as required by the Director. The Director may consider the failure to submit such an amendment within that time period as a waiver of any benefit under this subsection. The Director may establish procedures, including the payment of a surcharge, to accept an unintentionally delayed submission of an amendment under this subsection during the pendency of the application."

Response to Arguments

8. The claims have been given a priority date of 1-27-2003. The examiner notes that 09/920,529 (abandoned) is a continuation of 09/858,829 (abandoned), and the present application is a continuation-in-part of '529. The present application claims priority to provisionals 60/473,317 (should be 60/475,314) and 60/442,548. '548 on Page 1 claims to be a continuation of '529, but a provisional application cannot claim priority to anything else, so any limitations found in '548 will only gets '548's priority date

of 1-27-2003. The examiner found support in the 60/442,548 specification for displaying the serial number with the golf swing information on Pages 21 & 22 and in Fig. 2.

9. '695 teaches means for forming a data set including the measured swing data of each swing and the serial number (Figs. 10, 11; Para. 77 & Fig. 8, session profile 354 displaying identification of the instrumented golf club). '695 also teaches interior means for transmitting the data set including the measured swing data of each swing carried out by the golf player measured by the measuring means and the serial number (Fig. 1, contacts 20 to 26, Para. 48; Figs. 2 & 3, the examiner notes the applicants do not cite wireless transmission (this is taught in '189), the circuitry for driving the transmission is internal to the club, Figs. 4 & 5) computing means (28, Fig. 1) for receiving and processing the data set including the measured swing data of each swing carried out by the golf player and the serial number to identify the swing data of each swing carried out by the golf player; and display means (28, Fig. 1; interface screen 212, Fig. 7; Figs. 8 & 9, 12-14) for displaying the swing data (Figs. 10-14) of the swing carried out by the golf player and also the serial number to identify the swing data of the swing carried out by the golf player so that a golf player can identify the swing data of each of his swings.

The examiner notes that if the player were not using the data to improve his or her swing, the simple display of the data would have not patentable weight since it would be non-functional descriptive language. The use of the swing data to correct the player's swing gives this limitation a concrete, tangible, and useful result (in re Gulack, in re Lowry, in re Ngai, in re Miller). It would have been obvious to one of ordinary skill in the art to have modified '189 to include displaying the serial number with the swing data as

Art Unit: 3714

taught by '695 and presently claimed. '189 and '695 are both analogous are in that they are both instrumented golf clubs with accelerometers in the head of the golf club and they both display swing data for the player to use in improving his or her game. One of ordinary skill in the art also would have been motivated to make this limitation from the general knowledge of one of ordinary skill in the art because a typical golfer is known to carry several clubs in his or her golf bag (for example, three woods, two wedges, a putter, and eight irons (for example, 3, 4, 5, 6, 7, 8, and 9 irons, plus a pitching wedge). See "KISS Guide to Playing Golf," by Steve Dunno, © 2000, DK Publishing, Inc., Pages 85, 96, and 103 to 105 for a typical assortment of golf clubs. A golfer would want to have a swinging profile for each of the several golf clubs he or she typically uses. Having a serial number would enable the player to distinguish the golf clubs when practicing. The displayed swing data would be worthless if the swing data were not tied to a golf club. Tuer in '189 uses Bluetooth to uniquely identify golf clubs as discussed in the last rejection and "Response to Arguments" of 3-22-2007 which are incorporated by reference. Konow in 09/332,466 (abandoned, cited by examiner as non-patent literature on 3-22-2007), priority to 10/118,527 (published as 7,004,848 and 2003/0008722), mentions serial numbers for golf clubs on Page 10. Konow in '722, previously discussed assigns each golf club a unique number for identification purposes using a radio transponder (Abst., Para. 30-31). '122 mentions using the number to monitor player's play of the game (Para. 46). The advantage of this modification would be to display the player's golf club's serial number to enable the player to identify the golf club associated with the swing data. This would allow the player to select the

Art Unit: 3714

correct golf club to practice with to make effective use of the swing data. The applicants' invention appears to be a data set comprising swing data, club serial number, and club characteristics, with a date and time stamp to uniquely identify each swing. During the interview, the raw data included the sensor data, the club serial ID, and the club characteristics. Mr. Boscha said that each serial ID uniquely identifies each club, even if two clubs are identical. The examiner also believes Mr. Boscha stated the serial ID also conveys the club characteristics. The examiner believes specifying how the club characteristics are used in the calculations and analysis and how each serial ID uniquely identifies clubs, even those with identical characteristics, while including club characteristic information (shape, mass, volume, etc.) would more logically develop the claim language. The examiner believes the amendments could have been anticipated in light of the interview, so this action is non-final. The examiner respectfully disagrees with the applicants as to the claims' present condition for allowability.

Citation of Pertinent Prior Art

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Perlmutter in pre-grant publication 2002/0123386 A1 teaches instrumented clubs. Donnelly in U.S. patent 5,952,921 A teaches club serial numbers. Cameron, et al. in U.S. patent 6,565,448 B2 teaches swing analysis. Boley, et al. in U.S. patent 6,023,225 A teach RFID and magnetic identification of golf clubs. Konow in U.S. pre-grant publications 2006/0122002 A1 and 2003/0008722 A1 broadly teaches

Art Unit: 3714

instrumented clubs. Reeves in U.S. pre-grant publication 2004/0073325 A1 teaches tracking golf clubs by telemetry (Fig. 3a). Buhler in U.S. patent 6,565,449 B2 teaches impact measurement. Regester in U.S. patent 6,118,376 A teaches golf club identification. Consiglio in U.S. patent 6,540,620 B1 teaches putter training. McNitt, et al. in U.S. patent 6,567,536 B2 teach time-stamped swing data.

Conclusion


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Hoel whose telephone number is (571) 272-5961. The examiner can normally be reached on Mon. to Fri., 8:00 A.M. to 4:30 P.M.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert E. Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3714

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Matthew D. Hoel
Patent Examiner
AU 3714


Robert E. Pezzuto
Supervisory Patent Examiner
Art Unit 3714